

L 01054-6

ACCESSION NR: AT5022333

HU/2052/64/041/003/0329/0330

5

34/

AUTHOR: Bajusz, Sandor (Budapest); Lazar, Terez (Budapest); Paulay, Zoltan (Budapest)

TITLE: Anomalous reaction of beta-tert-butyl asparatate

SOURCE: Academias scientiarum hungaricae. Acta chimica, v. 41, no. 3, 1964, 329-330

TOPIC TAGS: ester, acetic acid, amino acid

Abstract: [English article] Working on a synthesis of eleodisine, the authors reacted the pentapeptide diester carbobenzoxy-Asp(OBu^t)-Ala-Phe-Ile-Gly-OEt and obtained an alkyl monoester identical with the carbobenzoxo-pentapeptide ethyl ester carbobenzoxy-Asp(OH)-Ala-Phe-Ile-Gly-OEt resulting in the reaction between diester under the action of trifluoroacetic acid. The pentapeptide monoester obtained by alkaline saponification could not be split further with trifluoroacetic acid. Orig. art. has 4 formulas.

ASSOCIATION: Research Institute for Pharmaceutical Industry, Budapest

SUBMITTED: 14Jan64

ENCL: 00

SUB CODE: OC, GC

NO REF SOV: 000

OTHER: 002

JPRS

Card 1/1 mbr

L 1178-66

ACCESSION NR: AT5025202/

HU/2502/64/042/004/0383/0391

AUTHOR: Bajusz, Sandor (Budapest)

TITLE: A novel synthesis of eledoisine

SOURCE: Academia scientiarum hungaricae. Acta chimica, v. 42, no. 4, 1964, 383-391

TOPIC TAGS: amino acid, organic synthetic process, drug

Abstract: [English article] Eledoisine, Pyr-Pro-Ser-Lys-Asp-Ala-Phe-Ile-Gly-Leu-Met-NH₂, was synthesized by building up the peptide molecule from segments, primarily by employing the p-nitrophenylester method. The product had a minimum hypotensive dose of 0.5 - 1.0 ng./kg. in rabbit and a minimum spasmogenic dose of 0.0125 - 0.0250 ng./ml. on guinea-pig ileum. The techniques employed were described in detail and the physical and chemical characteristics of the intermediate and final products were presented. "Thanks are expressed to Mrs. T. Lazar for the preparation of the intermediates and of the chromatograms, and to Dr. J. Boray for carrying out the pharmacological assays." Orig. art. has 1 graph.

ASSOCIATION: Research Institute for Pharmaceutical Chemistry, Budapest

SUBMITTED: 16Jun64

ENCL: 00

SUB CODE: OC, CC

NO REF SOV: 000

OTHER: 009

JPRS

Conf 1A

BAJUSZ, Sandor (Budapest VIII., Rottenbiller u. 26). LMMARO, Katalin (Budapest VIII., Rottenbiller u. 26); KISFALUDY, Lajos (Budapest X., Cserkesz u. 63); MEDZIHRADSZKY, K., BRUCKNER, Viktor, prof., dr. (Budapest VIII., Muzeum korut 4/b).

Synthesis of a dodecapeptide derivative for the formation
of corticotropin active polypeptides. Acta chimica Hung 30
no.2:239-243 '62

1. Forschungsinstitut fur die Pharmazeutische Industrie;
Chemische Fabrik Gedeon Richter; und Institut fur Organische
Chemie der L. Eotvos Universitat.
2. Editorial Board member, "Acta Chimica Academiae Scientiarum
Hungaricae" (for Bruckner).

I 17681-66 RM

ACC NR: AT6009221

SOURCE CODE: HU/2502/65/043/002/0147/0148

AUTHOR: Paulay, Zoltan (Budapest); Bajusz, Sandor (Budapest)

17

ORG: Research Institute for Pharmaceutical Chemistry, Budapest

B+1

TITLE: Novel protection for the guanidino group of arginine

SOURCE: Academia scientiarum hungaricae. Acta chimica, v. 43, no. 2, 1965, 147-148

TOPIC TAGS: organic synthetic process, amino acid, biochemistry

ABSTRACT: The synthesis of α -carbobenzoxy-G-tert.-butyloxycarbonyl-L-arginine, applying a combination of protection by α -carbobenzoxy and ω -tert.-butyloxycarbonyl groups, which is used for the synthesis of peptides containing basic aminoacid residues other than arginine, was reported. This arginine derivative appears suitable for the synthesis of arginine peptides containing basic amino acids.

[JPRS]

SUB CODE: 07, 06 / SUBM DATE: 15Jul64 / OTH REF: 006

FW
Card 1/1

Z

BAJUZ, F.

H.Velan's Spalovacie motory (Combustion Motors); a book review. p. 467

TECHNICKA PRACE (Slovenske nakladatelstvo technickej literatury)

Vol. 8, No. 10, Oct. 1956

Bratislava, Czechoslovakia

SOURCE: East European List (EEAL) Library of
Congress, Vol. 6, No. 1, January 1957

KUKURA, J.; MIKLETIC, T.; BAJUZIKOVA, A.; NEUSCHL, S.; STEPANEK, S.

Use of the reaction time, assessed cinematographically, for
investigating the process of training. Cesk. hyg. 8 no.4:
202-211 My '63.

(CENTRAL NERVOUS SYSTEM) (REACTION TIME)
(MOTION PICTURES) (HEARING)
(VISUAL PERCEPTION) (PSYCHOLOGY, EDUCATIONAL)

RAJZA, Endre, okleveles gépész mérnök

Technical and economic significance of preheating the locomotive
feed water. Kozl tud sz 12 no.12:549-555 D '62.

1. Vasuti Tudományos Kutató Intézet tudományos munkatarsa.

BAJZA, E.

With the eyes of a railroader at the Leipzig International Fair. p.280.

KOZLEKEDESTUDOMANYI SZEMLE. Budapest, Hungary. Vol. 8, no. 6, June 1958.

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, September 1959
Uncl.

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000103020015-9

BAJZA, Edit

see LICHTENBERGER BAJZA, Edit

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000103020015-9"

BAJZA, Endre, tudomanyos munkatars

Possibilities for expedient structural development of Hungarian
steam locomotives. Ipari energia 3 no.11:242-245 N '62.

1. Vasuti Tudomanyos Kutato Intezet.

BAJZA, Endre, tudomanyos fomunkatars

Methods for usefully affecting the processes occurring in the combustion chamber of steam locomotives. Ipari Energia 3 no.12:271-275 D '62.

1. Vasuti Tudomanyos Kutato Intezet.

BAJZA, Endre, tudomanyos fomunkatars.

Reducing slag losses in the operation of steam locomotives according to the achievements obtained by using tiltin-shaking grates. Ipari energia 4 no.1:9-13 Ja'63.

1. Vasuti Tudomanyos Kutato Intezet.

BAJZA, Endre

Reducing the exhaust steam losses of locomotives by means
of preheating devices. Ipari energia 4 no.2:36-40 F '63.

1. Vasuti Tudomanyos Kutato Intezet tudomanyos fomunkatarsa.

Pjz 3 6/6/00

✓3091* The Hysteresis Motor. A hysteresis-motor. (Hungarian.) Lajos Bajna. Elektrotechnika, v. 48, no. 12, Dec. 1955, p. 362-387.
Theory of the motor and its utilization based on vector analysis.
Graphs, diagrams. 4 ref.

L

B5 good

2

BANZ A. L.

2

621,313,323

①

✓ 2104. THE HYSTERESIS MOTOR. L. Bejza.
Elektrotechnika, Vol. 40, No. 12, 362-7 (Dec., 1956). In
Hungarian.
Survey of the basic theory of the self-starting synchronous
motor. The effect of harmonics is examined. Design features
are discussed. L.Csuros

BAJZA, L.

The hysteresis motor. p. 362. Vol 48, no. 12, Dec. 1955. ELEKROTECHNIKA, Budapest,
Hungary.

So: Eastern European Accession. Vol 5, no. 4, April 1956

BAJZA, L.

The current-, momentum-, and capacity conditions of the single-phase
angle gear. Periodica polytechn electr 4 no.4:275-291 '60.
(EEAI 10:6)

1. Lehrstuhl fur Elektrische Maschinen und Messungen, Technische
Universitat, Budapest.
(Electric machinery)

BAJZA, Lajos, adjunktus

Some questions relating to the theory of the Selsyn trans-
mitter-receiver system. Elektrotechnika 53 no.8:349-357 '60.

1. Budapesti Műszaki Egyetem Villamos Gepek es Meresek Tan-
szek.

BAJZA, Lajos, okleveles gépeszmérnök, adjunktus; LOVASS-NAGY, Viktor,
dr., okleveles gépeszmérnök, egyetemi tanár, SZENDY, Károly,
dr., okleveles gépeszmérnök, a műszaki tudományok doktora,
Kossuth-díjas, főszakértő

Examination of transient processes occurring in three-phase
asynchronous machines by means of the matrix calculus.
Elektrotechnika 57 no.9:381-391 S '64.

1. Chair of Electric Machines, Budapest Technical University,
Budapest, XI., Egry J.u.18 (for Bajza). 2. University, Khartoum,
Sudan (for Lovass-Nagy). 3. Power Plant and Network Designing
Enterprise, Budapest, V., Széchenyi rakpart 3 (for Szendy).

BAJZA, Sandor, okl.gepeszmernok.

Cracks on boiler sections of cast-iron section boilers.
Ipari energia 2 no.4:95 Ap '61.

1. Hoenergiagazdasagi es Tervezo Vallalat.

LATINAK, Istvan; HEGYI, Endre; BAJZATH, Andras

Society news. Koh lap 96 no. 370 Ag '63.

1. Csoport titkar (for Hegyi). 2. Titkar (for Bajzath).

BAJZATH, Andras

Society news. Koh lap 96 no.10:Suppl: Ontode 14 no.10:3 of
cover 0 '63.

1. Titkar.

BAJZATH, Andras

The 3d University Extension of Metallurgists. Koh lap 97 no.1:
44 Ja'64.

1. Csoport-titkar.

S/194/62/000/002/032/096
D230/D301

AUTHOR: Bajzelj, Janez

TITLE: Mechanical filters

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika,
no. 2, 1962, abstract 2-2-134g (Telekomunikacije,
1960, 9, no. 4, 11-13)

TEXT: This describes mechanical filters and their advantages in comparison with other filter types. Fundamental equations based on the laws of Hooke and Newton are deduced, giving the relationship between the electrical characteristics of a T-section equivalent filter circuit and the mechanical parameters of the resonant system (strength, modulus of elasticity, dimensions, speed of deformation, etc.). The most suitable material in respect of the frequency /temperature coefficient appears to be cast iron. At the input and output of the filters there are transformers of electrical oscillations to mechanical and vice versa. The application regions of the various formulas describing the operation of the magnetostrictive

Card 1/2

Mechanical filters

S/194/62/000/002/032/096
D230/D301

✓
transducers are calculated. By means of equivalent circuits of the filters and transducers it is possible to find the relationship between the transfer functions of the filter and the mechanical system parameters. The advantages of the mechanical filters with torsion oscillations are compared with those having longitudinal oscillations. The filter frequency characteristics are described; measuring methods and the frequency response are discussed for the mechanical filters operating at $f_0 = 68$ kc/s with a bandwidth of 1000 c/s. Abstracter's note: Complete translation.

Card 2/2

BAJZELJ, Janez, inz.

The branch telephone exchanges of the network of the city of
Skopje. Telekomunikacije 12 no.1:32-36 Ja '63.

BAJZER /M/

TOMASIC, Pavao; BAJZER, Marko

Phage typing of *Salmonella typhosa* in Croatia. Higijena, Beogr.
6 no.1:75-81 1954.

1. Centralni higijenski zavod, Zagreb.
(*SALMONELLA TYPHOA*
phage typing)
(*BACTERIOPHAGE*
typing o *Salmonella typhosa*)

PREBEG, Z., Dr.; BAJZER, M., dr.; MATOVINOVIC, J., Doc., dr.; KOVACIC, N., dr.

Incidence of goiter among schoolchildren in Zagreb. Higijena,
Beogr. 7 no.1-4:307-321 1955.

1. Centralni higijenski zavod, Zagreb (for Prebeg and Bajzer)
2. Klinika za interne bolesti Medicinskog fakulteta, Zagreb
(for Matovinovic and Kovacic).
(GOITER, epidemiol.
endemic in Yugosl. in school child., statist. (Ser))

BAJZIK, Erzsebet, dr.; RAJKOVITS, Karoly, dr.

Hypersecreting villous rectal tumor. Orv. hetil. 105 no.15:
701-703 12 Ap'64

l. Pecsi Orvostudomanyi Egyetem, II.Belklinika es Korbonctani
Intezet.

*

BAJZIK, Erzsebet, dr.; BURGER, Tibor, dr.; RAJKOVITS, Karoly, dr.

Protein-losing enteropathy caused by gastric resection. Orv.
hetil. 106 no.26:1219-1222 27 Je'65.

1. Pesci Orvostudomanyi Egyetem, II. Belklinika (igazgato:
Hemori, Arthur, dr.); I. Belklinika (igazgato: Barta Imre,
dr.) es Korbonctani Intezet (igazgato: Romhanyi, Gyorgy dr.).

Tests

HUNGARY

BAJZIK, Erzsabet, NEPPES, Aladar, TOTH, Karoly; Hungarian Academy of Sciences, Research Institute of Mathematics (MTA -- Magyar Tudomanyos Akademia --, Matematikai Kutato Intezet), and Medical University of Pecs, II. Medical Clinic (Pecsi Orvostudomanyi Egyetem, II. Balklinika).

"A New Nomogram for the Evaluation of Diapherometric Examinations."

Budapest, Kiserletes Orvostudomany, Vol XVIII, No 5, Oct 66, pages 449-453.

Abstract: [Authors' Hungarian summary] The most reliable method of basal metabolism determination is the diapherometric examination. It is a simple procedure but the calculation of the results is rather lengthy. The nomogram proposed by the authors will eliminate all the numerical calculations. Its value was proven in the course of examination of 350 patients. All 3 references are Eastern European. [Manuscript received 14 Sep 65.]

1/1

BAJZOVA, A.,: PIKLER, A.,: JAMBRICH, M.:

Problem of isolation of hemicellulose. p. 53. Vol. 9, no. 1, Jan. 1955,
Chemicke Zvesti.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956

BAK, Eugeniusz, mgr., inz.

New rapid connections for pipes. Przegl gorn 17 no.10:537-
540 0 '61.

EAK, Eugeniusz, mgr inz.

Drum dewatering screen. Przegl gorn 20 no.6: Supplement: Biul
glow inst gorn 14 no.2:19-20 Je'64

BAK, Eugeniusz, mgr inz.

Cooperation of pump and pipeline in hydraulic transportation.
Przegl gorn 20 no.10;Suppl.:Biul Glow inst gorn 14 no.3:23-28 '64.

BAK, I.

Mikhail Vasil'evich Lomonosov; on the 250th anniversary of his birth.
Vop. ekon. no.11:115-123 N '61. (MIRA 14:11)
(Lomonosov, Mikhail Vasil'evich, 1711-1765)

BAK, Issay Solomonovich, doktor ekonom.nauk; ZHUK, I., red.; MOSKVINA, R.,
tekhn.red.

[Antifeudal economic teachings in Russia during the second half
of the 18th century] Antifeodal'nye ekonomicheskie ucheniya v
Rossii vtoroi poloviny XVIII veka. Moskva, Izd-vo sotsial'no-
ekon.lit-ry, 1958. 123 p. (MIRA 12:4)
(Economics)

RUBINSHTEYN, Grigoriy Leonidovich, doktor ekon. nauk, prof.;
Prinimali uchastiye: EUKOVETSKIY, A.I., doktor ekon. nauk
prof.; VASIL'YEV, A.A., kand. ekon. nauk, dots.; VOLOKITIN,
A.S., kand. ekon. nauk, dots.; SARYCHEV, V.G., kand. ekon.
nauk, dots.; LUKASHEV, M.Ya., kand. ist. nauk, dots.;
LYSENKO, S.P., kand. ekon. nauk, dots.; BAK, I.S., doktor
ekon. nauk, prof., retsenzent; GOGOL', B.I., doktor ekon. nauk,
prof., retsenzent; ABATUROV, A.I., prof., red.; ROZHANKOVSKAYA,
I.I., red.

[Development of domestic trade in the U.S.S.R.] Razvitie vnutren-
nei torgovli v SSSR. Leningrad, Izd-vo Leningr. univ., 1964.
394 p.
(MIRA 18:4)

BAK, J.

"Quick method and device for manufacturing small-sized molding cores." p.353.
(PRZEGLAD ODLEWNICTWA. Vol. 4, No. 12, Dec. 1954. Krakow, Poland)

SO: Monthly List of East European Accessions. (EEAL). LC. Vol. 4, No. 4.
April 1955. Uncl.

BAK, Jerzy, mgr., inz.

Threechromatic objective colorimeter. Przegl elektrotechn 38 no.1:
42-44 '62.

1: Katedra Techniki Swietlnej Politechniki Warszawskiej.

BAK, Jozef

Our publishing achievements. Przegl kolej mechan 11 no.10:226-229
O '64

1. Director, Transportation and Communication Publishing Agency,
Warsaw.

BAK, Jozef, mgr inz.

Some remarks from the publisher. Przegl kolej elektrotech 10
[i.e. 15] no.12:337-339 D'63.

1. Chief editor, Transportation and Communication Publishing
Agency, Warsaw.

BAK, Jozef, mgr inz.

A few remarks on "Przeglad Kolejowy." Przegl kolej elektrotech 11
[i.e. 16] no.5:159-160, 3 of over My '64.

1. Chief editor, Transportation and Communication Publishing Agency,
Warsaw.

BAK, Jozef, mgr inz.

About the "Przeglad Kolejowy" publications. Przegl kolej mechan
ll [i.e.16] no.5:160, 3-4 of cover My '64.

1. Executive, Transportation and Communication Publishing Agency,
Warsaw.

BAK, Jozef, mgr inz.

Fifteenth anniversary of the Publication Agency for Transportation and Communication. Przegl kolej elektrotech 11 no.10:227-230 O '64.

1. Director, Publication Agency for Transportation and Communication, Warsaw.

BAK, Lorant, dr.; GONCI, Sandorne; SCHULZE, Ernone

Testing the wearing properties of some goods of the hosiery industry.
Magy textil 13 no.2:79-85 F '61.

1. Textilipari Minsegellenorzo Intezet. 2. Textilipari Muszaki es
Tudomanyos Egyesulet(for Bak).

BAK, Lorant, dr.; MAYER, Istvan

Uniform marking of textile fabrics. Magy textil 13 no.4:156-160
Ap '61.

1. "Magyar Textiltechnika" szerkeszto bizottsagi tagja(for Bak)

BAK, Lorant, dr.; GONCI, Sandorne; MAJ, Robertne

Comparative investigation of pure cotton fabrics and of those which were mixed with viscose fibers in various proportions. Magy textil 13 no.11:486-497 N '61.

1. Textilipari Minsegellenorzo Intezet. (TEXIMEI).

BAK, Lorant, dr.

"Fabric design" by Dr. Istvan Hajos. Reviewed by Dr. Lorant
Bak. Magy textil 14 no.2:96 F '62.

1. Magyar Textiltechnika" szerkeszto bizottsagi tagja.

BAK, Lorant, dr.

"Index to man-made fibres of the world" by P.Lennox-Kerr, Re-reviewed by Dr. Lorant Bak. Magy textil 1/ no.4:189 Ap '62

BAK, Lorant, dr.

Testing conditions of properties unmeasurable by instruments.
Magy textil 15 no.3:131-135 Mr '63.

1. Textilipari Minisegellenorzo Intezet osztalyvezetoje;
"Magyar Textiltechnika" szerkeszto bizottsagi tagja.

BAK, Lorant, dr.

Role of wearing probes in the development of synthetic fibers
and wool blended fabrics. Magy textil 15 no.9:414-417 S '63.

1. Textilipari Minosegellenorzo Intezet; "Magyar Textiltechnika"
szerkeszto bizottsagi tagja.

BAK, Lerant, dr.

Role of wearing tests in the development of fabrics made of synthetic
fibers and wool blends. Musz elet 18 no.24:15 21 N '63.

BAK, Lorant, dr.; GONCI, Sandorne; SCHULZE, Ernone

Durability tests of polyamide stockings. Magy textil 16
no.1:13-22 Ja '64.

1. Textilipari Minisegellenorzo Intezet. 2. "Magyar Textiltechnika" szerkeszto bizottsagi tagja (for Bak).

BAK, Lorant, dr.; BATOR, Elemerne; GATAI, Gyorgyne, dr.

Analysis of the polyvinyl chloride based so called rheumatism underwear. Magy textil 17 no.2:83-87 F '65.

1. Quality Control Institute of Textile Industry, Budapest.

BAK, Lorant, dr.; BATOR, Elemérna; GONCI, Sandorne

Wearing tests on polyester containing shirtings. Magy textil
17 no.4:176-181 Ap '65.

1. Quality Control Institute of Textile Industry, Budapest.
2. Editorial Board Member, "Magyar Textiltechnika" (for Bak).

BAK, L.I.

"Botkin's disease (infectious hepatitis) in children" by R.IU.
Kol'ner. Reviewed by L.I. Bak. Ped., akush. i gin. 19 no.6:2 of
cover. '57. (MIRA 13:1)

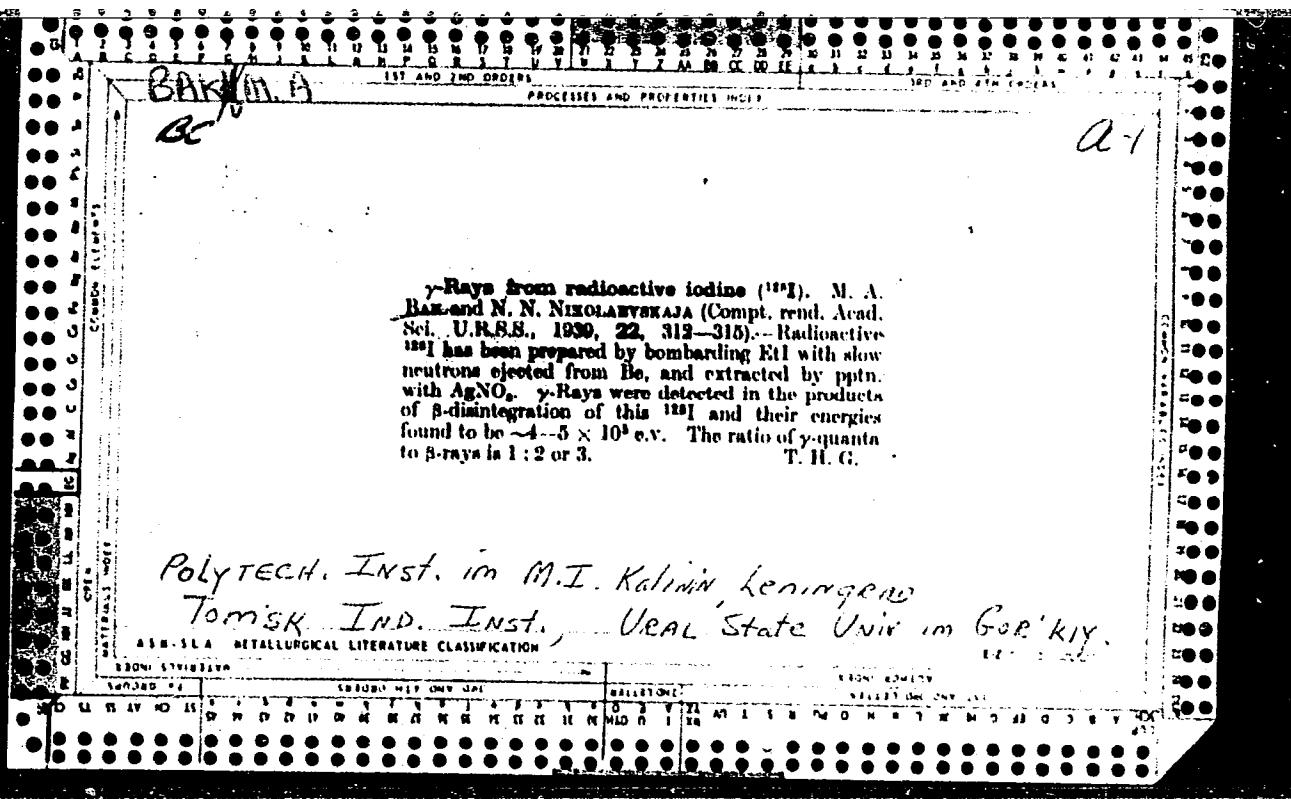
(HEPATITIS, INFECTIOUS)

BAK, M. A., Mr. Polytechnical Inst. im. M. I. Kalinin, Leningrad;
Mr. Tomsk Ind. Inst.; and Ural State Univ. im Gorkiy, Sverdlovsk.

"On the Photo-Neutron Effect in Beryllium," Zhur. Eksper. i Teoret. Fiz.,
9, No. 5, 1939.

BAK, M. A., Mbr. Polytechnical Inst. im. M. I. Kalinin, Leningrad;
Mbr. Tomsk Ind. Inst.; Ural State Univ. im. Gorkiy, Sverdlovsk.

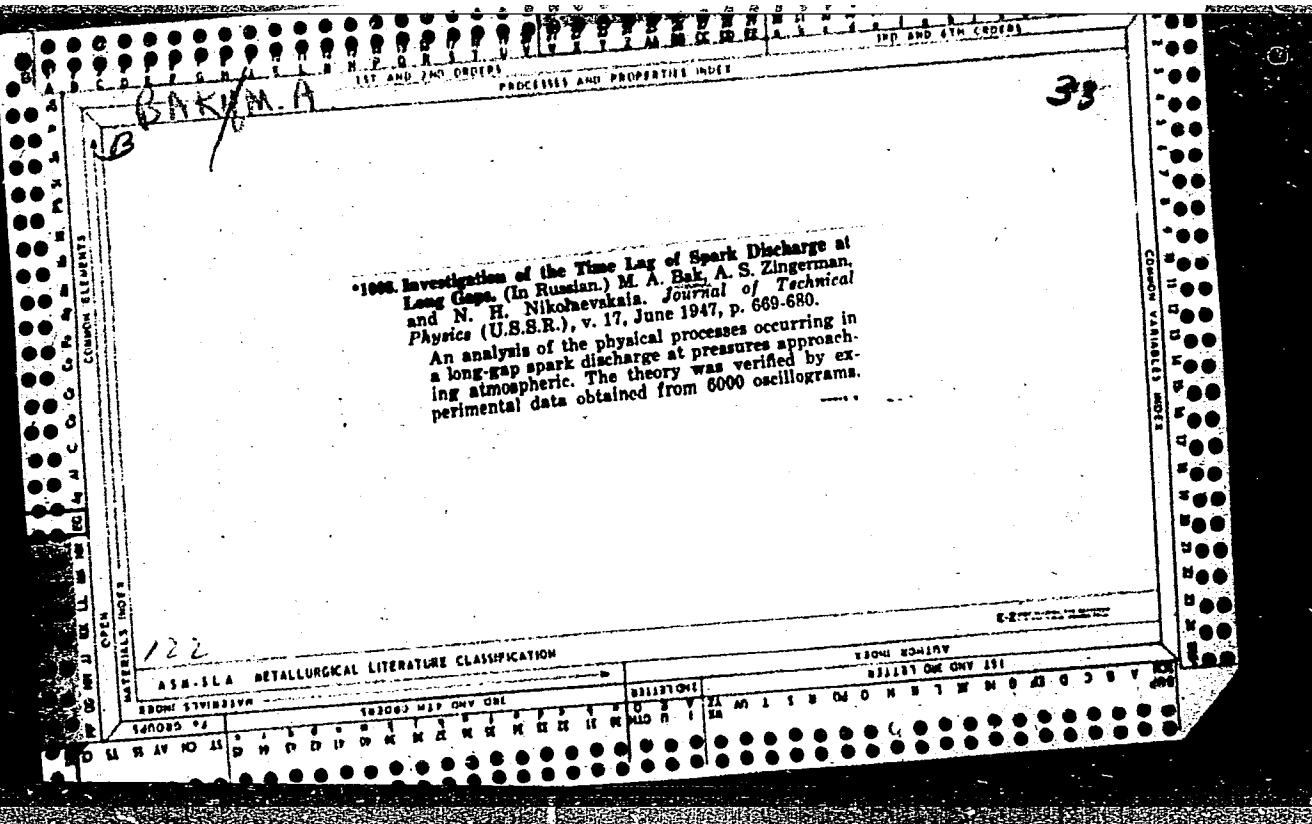
"On the Electron Spectrum of Radioactive Iodine," Zhur. Eksper. i
Teoret. Fiz., 9, No. 5, 1939.



BAK
CH

Effect of an irradiation of the discharge gap by electrons and rays on the breakdown voltage and the nature of the discharge. M. A. Bak, A. S. Zingerman, and N. N. Nikolaevskaya (Leningrad. Politekh. Inst.). *Zhur. Tekh. Fiz.* 17, 589-98 (1947).—For short discharge gaps (up to 10 cm.) the source of electrons and γ -rays was a tube previously described (Zingerman and Korsunskii, *C.A.* 34, 1007) and operating at voltages up to 3000 kv. supplied by an impulse generator. The 2 electrodes (2 spheres of 125 mm. diameter or 1 sphere) and a Cu mesh were placed axially in the beam or perpendicular to it at distances of 25 or 167 cm. from the Al foil window of the tube. The rectified voltage on the gap could reach 100 kv. The breakdown voltage was considered to be the voltage corresponding to 50% occurrence of discharge. The error was approx. 5%. For long discharge gaps another tube was used which is also described in the above paper and consists of hollow porcelain insulators. The exit window of the tube served as 1 electrode, the other being suspended above it at distances up to 100 cm. The same impulse generator delivered voltage to tube (up to 700 kv.) and to the gap (\sim 600 kv.). The exptl. results

show that on plotting the drop of voltage due to irradiation $(\Delta U/U_0)\%$ versus the length of the gap, there is a min. at 2.5 cm. By inserting a paraffin block in the path of the rays it can be shown that γ -rays have only a slight influence (4-7%) as compared to electrons + γ -rays (30-45%). When the axis of the electron beam corresponds to the axis of discharge there is an action on the gap only if the neg. electrode is turned towards the tube. Study of long gaps gives qual. data to explain these results. It could be shown that the topography of the field was of prime importance; if the discharge started at the anode, irradiation furthered it; if it started at the cathode, irradiation quenched it. This is attributed to a space-charge formation at the neg. electrode. S. Pakwver



BAK M. A.

PA 11T46

USSR/Gamma Rays
Discharges, Electric

May 1947

"The Relation Between the Breakdown Voltage and the Form of Electric Discharge and the Illumination of the Discharge Interval by Electrons and Gamma Rays,"
M. A. Bak, A. S. Zingerman, N. N. Nikolayevskaya,
8 pp

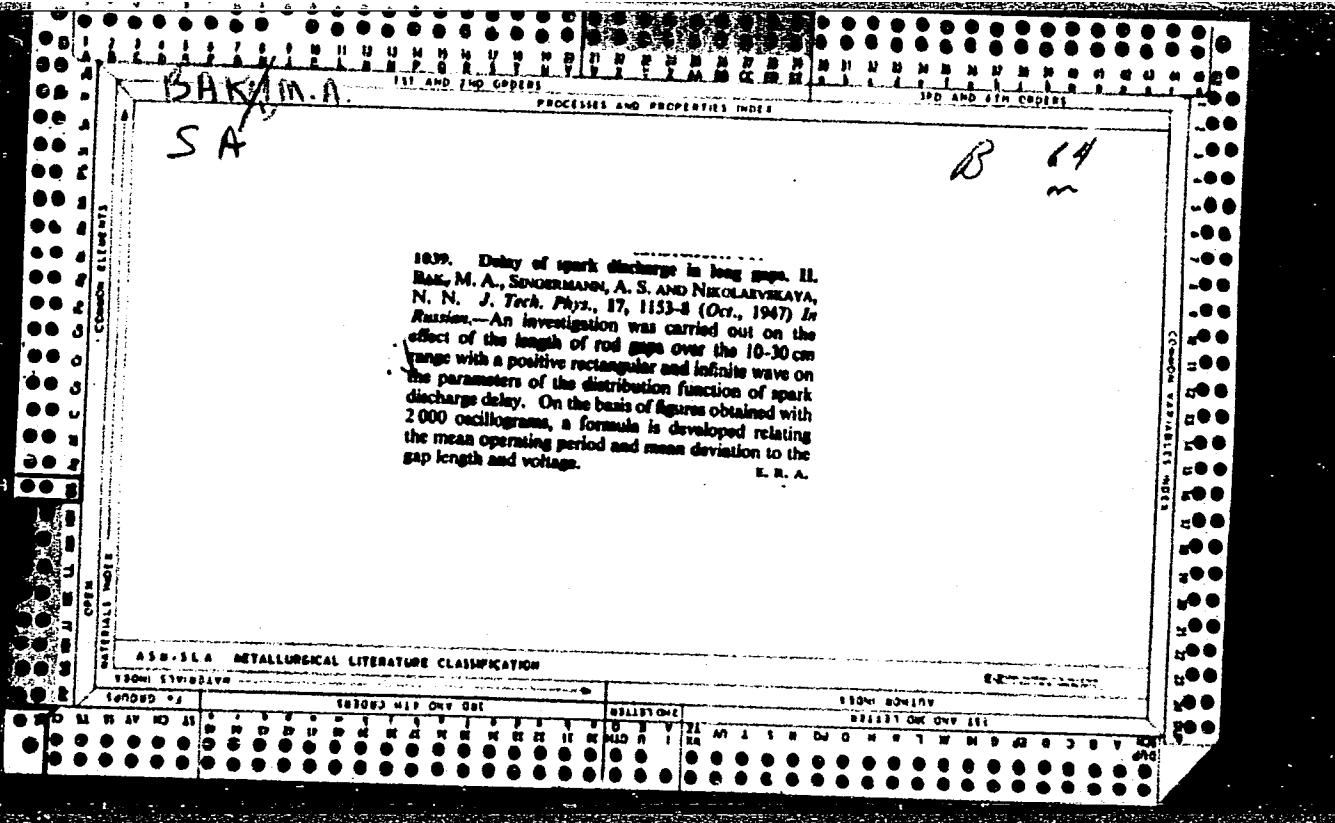
"Zhur Ekspl Teor Fiz" Vol XVII, No 5

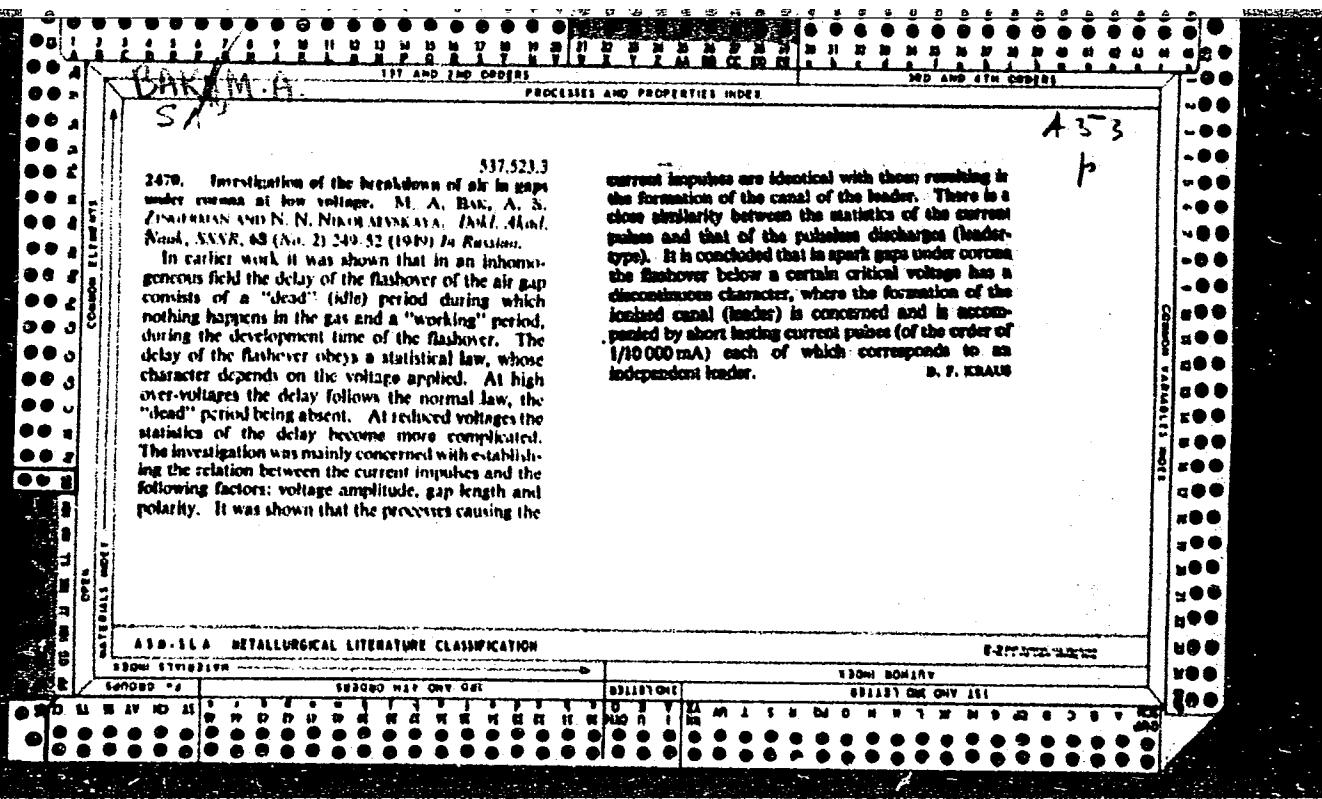
Gives general discussion of what has been done, the method of measurement, with three schematic diagrams and a photograph, results of measurements and their interpretation, illustrated with photographs and graphs, and conclusions.

11T46

BAK, M. A., Mbr. Polytechnical Inst. im. M. I. Kalinin, Leningrad;
Mbr. Tomsk Ind. Inst.; and Ural State Univ. im. Gorkiy,
Sverdlovsk.

"Investigation of the Spark Discharge at Long Intervals,"
Zhur. Tech. Phis. Vol. 17, No. 10, 1947.





~~BAK, M. A.~~

USSR/Physics - Radiation Rate

FD-2827

Card 1/1 Pub. 153-10/30

Author : Petrashak, K. A. and Bak, M. A.

Title : Determination of Radiation Rate Falling on a Round Target from a Round Source

Periodical : Zhur. Tekh. Fiz., 25, 636-643, 1955

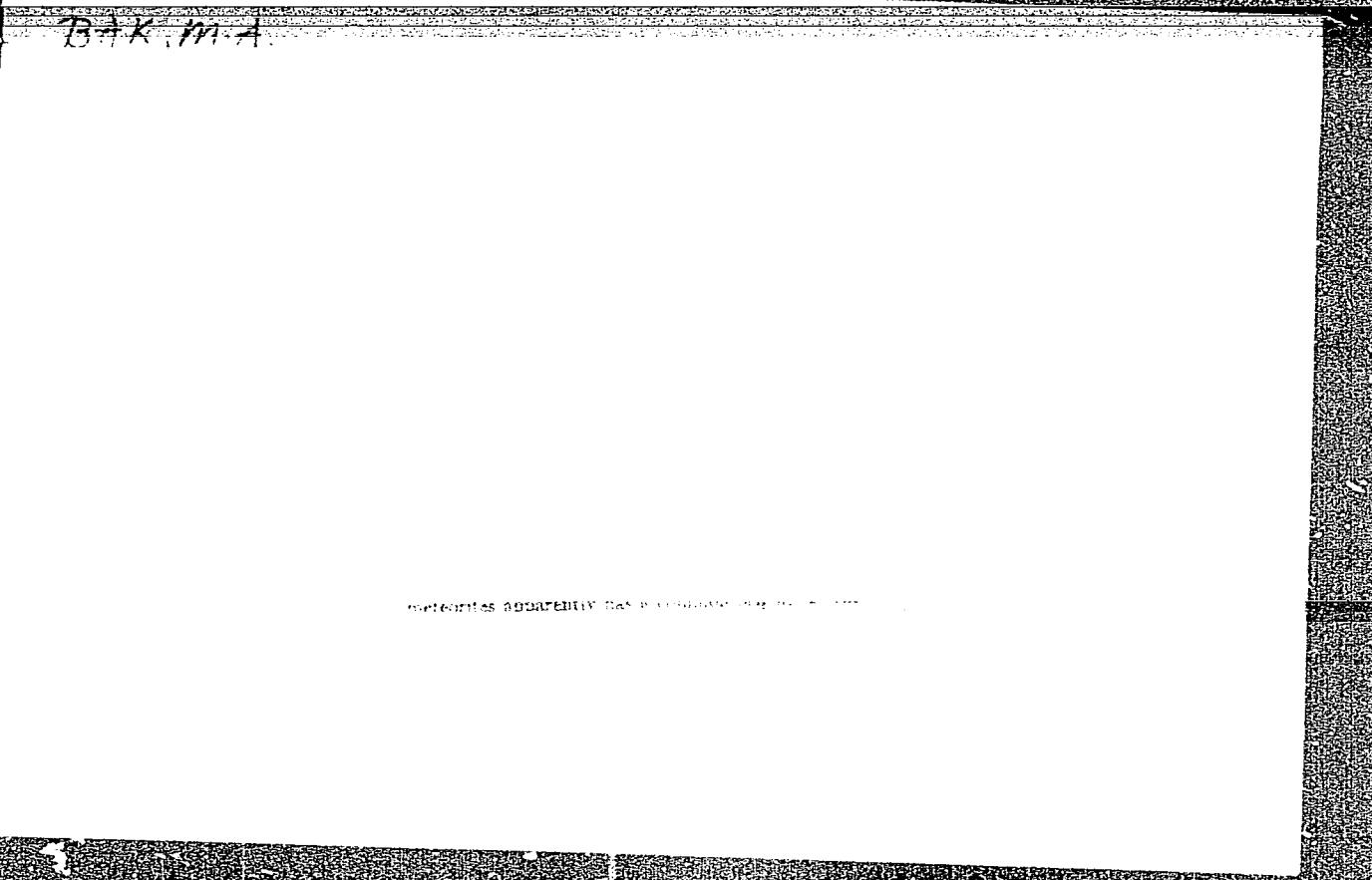
Abstract : The problem is solved in the form of two series which should be applied according to ratios of target and source radii. The irradiation rate on the target is tabulated in relation to the distance from source for nine ratios of target and source. Three US references.

Institution :

Submitted : June 23, 1955

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000103020015-9



APPROVED FOR RELEASE: 06/06/2000

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APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000103020015-9"

V 6932

DETERMINATION OF ABSOLUTE YIELD FROM NEUTRON SOURCES. M. A. Bak, K. A. Petzhak, and Yu. F. Romanov.

Uspekhi Fiz. Nauk 53, 567-84 (1956) Apr. (In Russian)

A review is given of works published up to 1955 on the question of determining the absolute number of neutrons emitted per sec by neutron sources. Results of the works are completely tabulated giving the comparative data on the type of sources, quantity of Ra or Rn, and the Be absorbers, the type of detectors, and the neutron yield from the Ra + Be and Rn + Be sources. (R.V.J.)

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PETERZHAK, K.A.; SEMENYUSHKIN, I.N.; BAK, M.A.

Uranium isotopes in meteorites. Biul.Kom. po opr.abs.vozr.geol.
form. no.2:38-40 '57. (MIRA 10:4)

1. Radiyevyy institut im. V.G. Khlopina AN SSSR.
(Uranium--Isotopes) (Meteorites)

12811 11111

AUTHOR PETRZHAK, K.A., BAK, M.A., FERSMAN, B.A., PA - 2716
TITLE Determination of the Absolute Number of Neutrons emitted by a Radium-Beryllium Source by Comparison with a Photoneutron-Deuterium Source. (Oprеделение абсолютного числа нейтронов, испускаемых радиево-бериллиевым источником, сравнением с фотонейтронным deutериевым источником, Russian)
PERIODICAL Atomnaya Energiya, 1957, Vol 2, Nr 4, pp 319-326 (U.S.S.R.)
Received 5/1957 Reviewed 6/1957

ABSTRACT The authors develop a comparatively simple method realizable in any laboratory for the gauging of neutron sources. For the purpose of determining this absolute neutron number two problems have to be solved. 1) Determination of the absolute number of photoprottons produced in a given volume with gaseous deuterium at a known pressure and at a known temperature. The gas is then replaced by heavy water and by this a so-called primary neutronstandard is produced which emits a certain number of neutrons. 2) By comparison with this primary standard the absolute number of neutrons is obtained which is emitted within the time unit of the Ra-Be-source. Experimental arrangement is discussed on the basis of a drawing. The ionization chamber consists of a nickel hollow sphere and a hollow brass finger serves as collecting electrode. Recording of the photoprottons is given step by step. The relative neutron intensities of the γ -D-source and of the Ra- α -Be source were determined by comparison of the integral spatial distributions of slow neutrons in water. The neutrons were slowed down by water which is com-

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Determination of the Absolute Number of Neutrons PA - 2718
emitted by a Radium-Beryllium Source by Comparison with a Photo-
neutron-Deuterium Source.

tained in a ~1 m high cylindrical vessel.

Results. The authors carried out 6 measuring series for the determination of the absolute number of the photoprottons produced in the chamber under the influence exercised by γ -rays. The intensities of the Ra-g-Be-source computed by means of these measuring values are shown together in a table. The absolute number of the neutrons emitted from the radium-beryllium source investigated here amounts to $(9,4 \pm 0,6) \cdot 10^5$. For the purpose of improving accuracy the development of this method is being continued.
(7 ill. and 1 table)

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RUMNI/Nuclear Physics - Installations and Instruments. Methods
of Measurement and Research C-2

Obs Jour : Ref Zhur - Fizika, No 4, 1959, No 7481

Author : Bak M.A., Gorshkov G.V., Matviyenko V.I., Petrzhak K.I.,
Romanov Yu.F.

Inst : Radium Institute, Academy of Sciences, USSR, Leningrad
Title : Radon Neutron Sources

Orig Pub : Bul. Inst. politehn. Iasi, 1957, 3, No 1-2, 47-54

Abstract : By measuring the spatial distribution of the neutron density
in H₂O, the authors have determined the power and the average
energy of the neutron sources Ra-Be, Ra-B, Ra-C, Ra-CaF₂,
Ra-Mg, Ra-Al, and Ra-Si (the α n reaction). The absolute
neutron yield from the various sources was determined by com-
paring the integral distributions of the slowed-down neu-
trons from the investigated and from a standard Ra-Be source.
The mean energy of the neutron spectra was estimated from
the magnitude of the relaxation length (L), determined from
the measurements of the distribution of the density of the

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HUMANI/Nuclear Physics - Installations and Instruments. Methods C-2
of Measurement and Research

Abs Jour : Ref Zhur - Fizika, No 4, 1959, No 7481

neutrons at distances greater than 20 cm ($\sim e^{-x/L}$). The following was established: (1) The neutron yield varies from 1.5×10^{-4} /microcurie of Rn for Be to 37/microcurie of Rn for C. (2) The average energy of the spectra of the investigated sources lies in the interval from 2.0 to 4.7 Mev. (3) The relaxation length depends linearly on the maximum energy of the neutron spectra. -- I.P. Sadnikov

Card : 2/2

AK, V.-A., (Candidate of Chemical Sciences)

"Isotope Content of Uranium in Meteorites"

for this work author received award by the Academy of Sciences of the USSR, 1957.
Priroda, No. 2, 1958. pp. 113-114.

DHA, D.L.H.

PAGE I ROCK METEORITES

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SC/37-4-15

Vladivostok, USSR. Kontakt do autorium.

Vladivostok, 1959, 722, 16 (Meteorites). Collection of meteorites from the USSR and abroad. Moscow, 1959. 209 p. Printed slip bound. 1,200 copies printed.

Dr. V.G. Feodosyev, Astronomical Observatory, Institute of Physics, L.R.E. Meteorite Research Institute, Moscow, Russia.

REVIEW: This publication is directed towards meteorite researchers, physiologists, and other specialists concerned with any aspect of meteorites and other extraterrestrial astronomical bodies.

CONTENTS: This collection contains 16 articles, 10 of which are in Russian and 23 chapters and figures from the Conference on Meteorites organized by the Central Bureau of the International Astronomical Union, held in Moscow, USSR, 1958. The articles deal with the origin and evolution of the elements in the solar system; the physical properties of meteorites found in the earth and the moon, and meteorites found in the Solar-Planetary System; the physical properties, density, structure, and the chemical composition of meteorites; the results of the experiments made at the Institute of Physics, USSR, Institute of Physics, Bulgarian Academy of Sciences, and other scientific organizations.

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Trudy, t. IX (Transactions of the Radium Institute, Academy of Sciences USSR, No. 9) Moscow, Izd. v AN SSSR, 1959. 287 p. Errata slip inserted.	
1,700 copies printed.	
Ed.: N.A. Petrilov, Doctor of Physical and Mathematical Sciences; Ed. of Publishing House: G.N. Aron; Tech. Ed.: A.V. Salinov.	
PURPOSE: The volume is intended for physicists.	
COVERAGE: The book represents volume 9 of the Transactions of the Radium Institute and contains the results of studies conducted at the Institute chiefly from 1955 to 1956. There are a number of articles dealing with the study of nuclear reactions occurring with particles of different energies ranging from several ev up to hundreds of Mev. Others treat different problems of the physics of neutrons. Results of studies of various neutron sources, neutron moderation, neutron interaction with matter are presented. The majority of the articles are concerned with problems of method. The authors provide a complete description of the construction of equipment, and of the results of tests performed under laboratory conditions. No personalities are mentioned. References accompany individual articles.	45
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B A K, M.A.

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International Conference on the Peaceful Uses of Atomic Energy. 2nd, Geneva, 1958.

Makly Sovetskikh Naukaykh poluchayushchikh priemnye isotopy (Reports of Soviet Scientists Producing and Application of Isotopes) No. 1, Atommash, 1959. 308 p. (Series: Ets. Trudy, vol. 6) 8,000 copies printed.

Eds. (Title page): G.Y. Naidenov, Academy and I.V. Novikov, Corresponding Member, USSR Academy of Sciences; Ed. (Inside book): Z.N. Andrenko, Tech. Ed.: Z.D. Andrenko.

PURPOSE: This book is intended for scientists, engineers, physicists, and mathematicians engaged in the production and application of atomic energy to peaceful uses; for professors and graduate and undergraduate students of higher technical schools where nuclear science is taught; and for the general public interested in atomic science and technology.

CONTENTS: This is volume 6 of a 6-volume set of reports delivered by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy held in Geneva from September 1 to 13, 1958. Volume 6 contains 32 reports on: 1) modern methods for the production of stable radioactive isotopes and their labeled compounds; 2) research results obtained with the aid of isotopes in the field of chemistry, metallurgy, machine building, and agriculture; and 3) dosimetry of ionizing radiation. Volume 6 was edited by: S.V. Lernitsky, Candidate of Technical Sciences; V.M. Prusakov, Candidate of Chemical Sciences; and V.T. Solov'ev, Candidate of Medical Sciences. See Sov/Ets. for titles of volumes of the set. References appear at the end of the articles.

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ROMANOV, Yu.F.; PETRZHAK, K.A.; BAK, M.A.

Cadmium ratios for Ag¹⁰⁷ and Ag¹⁰⁹. Trudy Radiev, inst. AN SSSR 9:84-86
'59. (MIRA 14:6)

(Silver—Isotopes) (Cadmium)

BAK, M.A.; PETRZHAK, K.A.; ROMANOV, Yu.F.

Analysis of a neutron field of uniform density. Trudy Radiev.inst.
AN SSSR 9:87-90 '59. (MIRA 14:6)
(Neutrons)

ROMANOV, Yu.F.; PETRZHAK, K.A.; BAK, M.A.

Measurement of the diffusion length of thermal neutrons in water.
Trudy Radiev.inst.AN SSSR 9:104-106 '59. (MIRA 14:6)
(Neutrons)

BAK, M.A.; PETRZHAK, K.A.; ROMANOV, Yu.F.

Wall effect in ionization chambers. Trudy Radiev.inst.AN SSSR 9:192-
206 '59. (MIRA 14:6)
(Ionization chambers)

21(8)

AUTHORS:

Bak, M. A., Bugorkov, S. S., SOV/89-6-5-18/33
Il'inskaya, T. A., Petrov, Yu. G., Petrzhak, K. A.,
Solntsev, V. M., Sorokina, A. V., Ushatskiy, V. N.

TITLE:

The Yield of Ru¹⁰³ and Ru¹⁰⁶ in the Fission of U²³⁵ and
Pu²³⁹ by Fast Neutrons (Vkhody Ru¹⁰³ i Ru¹⁰⁶ pri delenii
U²³⁵ i Pu²³⁹ bystryimi neytronami)

PERIODICAL:

Atomnaya energiya, 1959, Vol 6, Nr 5, pp 577-578 (USSR)

ABSTRACT:

The yields of Ru¹⁰³ and Ru¹⁰⁶ were determined by means of
a relative measurement with respect to the Mo⁹⁹-yield.
Uranium oxide (U²³⁵-enrichment >90 %) and plutonium oxide
were pressed in aluminum caskets. The latter were surrounded
by a 1 mm thick Cd-sheet, and the whole was packed in a
firmly closed aluminum cylinder. The cavities are filled
with boron carbide (all-round thickness at least 2 cm).
Two samples were made from uranium and 4 from plutonium,
and were irradiated for 52.2 hours in a water-filled beam
tube of the heavy-water reactor of the AN SSSR (AS USSR).
The neutron spectrum is characterized by the ratio

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The Yield of Ru¹⁰³ and Ru¹⁰⁶ in the Fission of
U²³⁵ and Pu²³⁹ by Fast Neutrons

SOV/89-6-5-18/33

$E_n > 1.5 \text{ Mev}$: $E_n > 2.5 \text{ Mev} = 4.0 \pm 1.5$. From the irradiated samples Ru and Mo was chemically separated, after which thin β -preparations (thickness $< 20 \mu\text{g/cm}^2$) were produced on an organic foil; their activity was measured by means of a 4π -counter. An aluminum filter of 3 mg/cm^2 thickness is attached, so that only the β -rays of Ru¹⁰³ and Ru¹⁰⁶ reach the counter. Determination of the absolute activity of Ru¹⁰³ and Ru¹⁰⁶ was carried out by means of further filtering and recording the absorption curves of these radiating bodies with the same numbers. The momentum values measured make it possible, from 2 equations with 2 unknown ratios to calculate the latter. Herefrom it is possible to calculate the absolute fractions. From the latter and from the measured absolute Mo⁹⁹- β -activity (which will be dealt with by a publication in the near future) it was possible to calculate the following yields:

Card 2/3

The Yield of Ru¹⁰³ and Ru¹⁰⁶ in the Fission of
U²³⁵ and Pu²³⁹ by Fast Neutrons

SOV/89-6-5-18/33

	Ru ¹⁰³	Ru ¹⁰⁶
Pu ²³⁹ (n,f)	5.7 ± 1.0 %	4.6 ± 0.8 %
U ²³⁵ (n,f)	3.2 ± 0.6 %	0.71 ± 0.12 %

There are 1 figure, 1 table, and 1 Soviet reference.

SUBMITTED: December 22, 1958

Card 3/3

PHASE I BOOK EXPLOITATION

SOV/4797

Bak, M. A., and Yu. F. Romanov

Neytron (Neutron) Moscow, Atomizdat, 1960. 80 p. Errata
slip inserted. 13,000 copies printed.

Ed.: G. M. Pchelintseva; Tech. Ed.: N. A. Vlasova.

PURPOSE: This booklet is intended for the general reader interested in the atomic physics.

COVERAGE: The booklet discusses the structure of the atomic nucleus, the discovery of the neutron and its properties, and the neutron sources. It gives data on the interaction of neutrons with the substance, the fission of heavy nuclei induced by neutrons, recording of neutrons, and determination of the absolute number of neutrons emitted by neutron sources. The production of monoenergetic neutrons, and the dosimetry of neutrons and protection against radiation are also treated. The antineutron and the use of

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Neutron

SOV/4797

neutrons in science and technology are discussed. No personalities are mentioned. There are no references.

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AVAILABLE: Library of Congress (QC721.B129)	
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S/048/60/024/007/015/032/xx
B019/B056*24,600*AUTHORS: Bak, M. A., Petrzhak, K. A., and Chen' Tya-meyTITLE: The (n, 2n) and (γ, n) Reactions of Au¹⁹⁷ /9PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960,
Vol. 24, No. 7, pp. 818-819 X

TEXT: This paper was read at the 10th All-Union Conference on Nuclear Spectroscopy, which took place from January 19 to January 27, 1960 at Moscow. The $(n, 2n)$ and (γ, n) reactions transform one and the same initial nucleus into one and the same nearest light isotope of the bombarded nucleus. The authors investigated the interaction of 14-Mev neutrons with Au^{197} and the interaction of γ -quanta, whose upper energy limit was also 14 Mev, with Au^{197} . For the $(n, 2n)$ reaction an effective cross section of (1800 ± 500) mb, and for the (γ, n) -reaction at $h\nu = 17.5$ Mev one of (460 ± 50) mb was obtained. In these reactions, the Au^{196} isotope was obtained from the Au^{197} isotope. In the experiments described here, the 14 Mev neutrons were obtained from the reaction $H^3(d, n)He^4$; the cor-

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The $(n, 2n)$ and (γ, n) Reactions of Au¹⁹⁷S/048/60/024/007/015/032/XX
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responding γ -quanta were obtained in a betatron with a tungsten target. The Au-samples had a diameter of 14 mm and a thickness of 12-14 mg/cm². By means of a boron carbide shield, the thermal neutrons and resonance neutrons were absorbed nearly completely. After irradiation, the samples were set up at a distance of 1.5 m from an end-window counter, and measurements were regularly carried out for 10 to 15 days. In the neutron irradiation,

two periods of the Au¹⁹⁷-activity could be found. The shorter halflife was 9.7 ± 0.3 hours, and the longer one 5.6 ± 0.1 days. In the photo-neutron process, only the longer halflife was found. It is considered to be possible that at higher energies of the gamma quanta, also in this case the shorter halflife occurs. The energy of β -emission did not exceed 250 kev. The authors think that it should be possible in the near future to set up the decay scheme of Au¹⁹⁶ by studying the γ -spectrum. There are 6 non-Soviet references.

ASSOCIATION: Radiyevyy institut im. V. G. Khlopina Akademii nauk SSSR
(Radium Institute imeni V. G. Khlopin of the Academy of Sciences, USSR)

Card 2/2

87959

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B019/B056

26.2541

AUTHORS: Bak, M. A. and Shimanskaya, N. S.

TITLE: A Radium - Mesothorium - Beryllium Neutron Source

PERIODICAL: Izmeritel'naya tekhnika, 1960, No. 12, pp. 42-45

TEXT: Experimental and theoretical data concerning a RaTH + Be neutron source are given. This source is produced from so-called mixed preparations which had been obtained from uranium-thorium ores. The ratio of the neutron yields of the source to that of a Ra+Be source is given as $K = \eta(\text{RaTH+Be})/\eta(\text{Ra+Be}) \approx 1.6$. The results of the experimental investigations and theoretical studies are contained in a table. On the basis of these data, which agree well with the experimental values, a diagram could be set up (Fig. 3) that determines the number of neutrons emitted by the source per unit time, and the radium γ -equivalent of this source within up to 30 years. There are 3 figures, 1 table, and 6 references: 4 Soviet, 1 British, and 1 German.

Card 1/3

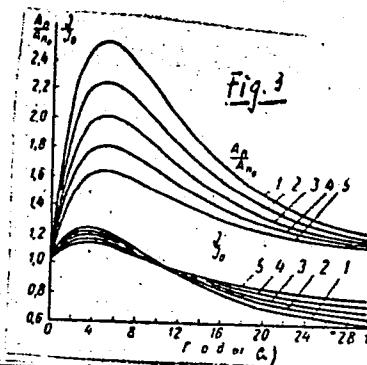
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B019/B056

Legend to Table 1: 1) Day of measurement. 2) Number of years between sealing and measuring. 3) Composition of the source as calculated on the various days of measurement. 3a) Ra, millicuries. 3b) Milligram-equivalent of radium. 3c) Millicuries. 3d) Ratio between the number of decaying atoms: $T_t = (\lambda N_t) RdTh / (\lambda N_t) MsTh$, where λ is the decay constant and N_t the atom number. 3e) Millicuries. 3f) Milligram-equivalent of radium. 4) Radium- β -equivalent, milligram-equivalent of radium. 4a) J_{calc} . 4b) J_{exp} . 4c) J/J_0 calc. 4d) J/J_0 exp. 5) Relative neutron number. 5a) A_n calc. 5b) A_n exp. 5c) A_n/A_{n_0} calc. 5d) A_n/A_{n_0} exp. 6) Q value, cal/h; 6a) Q_{calc} . 6b) Q_{exp} .

Legend to Fig. 3: The curves denoted by 1, 2, 3, 4, and 5 stand for the relative neutron yield and the relative radium- β -equivalent for five different original compositions of the Ra+MsTh source with 55% Ra+45% MsTh, 60% Ra + 40% MsTh; 65% Ra + 35% MsTh; 70% Ra + 30% MsTh; 75% Ra + 25% MsTh. a) = years.

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B019/B056

1 Дата измерения	2 Число лет, прошедших от момента запайки до момента измерения	Вычисленный состав источника в разные моменты времени						4 Радиевый т-эквивалент, мг-экв радиоактивности				5 Относительное число нейтронов A_n				6 Тепловая эффект Q , ккал/час	
		Q	MgTh	d	RdTh	Q	b	c	d	A_n	a	b	c	d	Q	b	
	Ra	актив. разн.	актив. разн.	T ₁	актив. разн.	актив. разн.	актив. разн.	актив. разн.	актив. разн.	расч.	расч.	расч.	расч.	расч.	расч.	расч.	
3/1 1948	0	198,0	112	213	0	—	—	—	—	198	—	—	—	—	—	—	
1/1 1949	1,00	197,8	101	193	0,321	62,0	48,1	310	—	1,00	—	198	—	1,00	—	—	
10/X 1949	1,77	197,8	93,0	177	0,516	91,3	70,8	347	346	1,12	1,12 ²	297	—	1,50	—	—	
10/XII 1949	1,95	197,8	91,4	174	0,568	98,8	76,6	362	362	1,17	1,17	345	—	1,74	—	—	
10/XII 1953	5,95	197,8	60,5	115	1,095	125,9	97,6	366	—	1,18	—	357	334	1,81	1,81 ¹	—	
10/II 1959	11,1	197,0	35,7	68,0	1,316	69,5	69,4	302	356	1,15	1,14	403	375	2,04	2,03	48,7	
								305	305	0,97	0,98	348	328	1,76	1,78	43,3	
																44,0	

Card 3/3

KHAZOV, Yu.L.; BAK, M.A.; PETRZHAK, K.A.; ROMANOV, Yu.F.

Energy distribution of neutrons in the water surrounding the source.
Trudy Radiev.inst.AN SSSR 9:91-103 '59. (MIRA 14:6)
(Neutrons)

BAK, M.A.; GORSHKOV, G.V.; MATVIYENKO, V.I.; PETRZHAK, K.A.; ROMANOV, Yu.F.

Radon neutron sources. Trudy Radiev.inst.AN SSSR 9:107-112 '59.
(MIRA 14:6)

(Neutrons) (Radon)

BAK, M.A.; GORSHKOV, G.V.; MATVIYENKO, V.I.; PETRZHAK, K.A.; SHIMANSKAYA, N.S.

Determination of the neutron yields of the sources Ra + Be, Ac +
Be, MsTh + Be, and P + Be. Trudy Radiev.inst.AN SSSR 9:120-125
^{159.} (MIRA 14:6)

(Neutrons)

BAK, M.A.

32986

7/6/61/000/000/013/033
8/1/61/002

246600

AUTHORS:

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M. A., Minerva, S. I., Tsvetkov, V. V.,
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Chernyshova, L. P., Shiryayeva, L. P.

TITLE:

Yields of fission fragments in the fission of U^{235} , U^{238} , and
 Pu^{239} by fission neutrons

SOURCE:

Krupchitskiy, F. A., ed. Neutronnaya fizika; sbornik statey.
Moscow, 1961, 217-223TEXT: The authors determined the yield of Sr^{89} , Zr^{95} , Mo^{99} , Ag^{111} , Cd^{115} ,
and Ba^{140} in the fission of U^{235} , U^{238} , and Pu^{239} by fission neutrons. A
 U^{235} -enriched uranium plate arranged in the thermal column of a heavy-water
reactor of the AS USSR served as neutron source. 300-mg tablets and 1- μg
targets were produced from each substance to be fissioned. The fission
events were recorded in a fission chamber during the entire irradiation
period (Fig. 1). The fission fragment yields were determined from their
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32565
S/641/61/000/000/013/033
B104/B102

Yields of some fragments in ...

β -activity. The absolute β -activity was measured by two standard instruments with end-window counters. These standard instruments were calibrated with preparations of the fission fragments to be studied which had been applied to a collodium film. The absolute β -activity of the standard preparations was determined either with a 4x-counter or with an end-window counter having a window thickness of $0.005 \pm 0.001 \text{ mg/cm}^2$. Six to eight measurements were made in three to four tablets (Fig. 3). The determination error of the fragment yield was between 6 and 11%. The fragment yield is found to depend on the isotope mass number. There are 3 figures, 3 tables, and 7 references: 3 Soviet and 4 non-Soviet. The four references to English-language publications read as follows:
Engelkemeir, D., Novey T., Schover D., Radiochemical Studies. The Fission Products, Book 3, div. IV, vol. 9, 1334 (1951); Radiochemical Studies: The Fission Products. Book 3, div. IV, vol. 9, Appendix B, 2003 (1951); Keller R., Steinberg E., Glendenin L., Phys. Rev., 94, 4, 969 (1954); Turkevich A., Niday J., Phys. Rev., 84, 1, 52, (1951).

Card 2/2

21100
AUTHORS:

Shpakov, V. I., Petrzhak, K. A., Bak, M. A., Kovalenko, S. S.,
Kostochkin, O. I.

TITLE:

Delayed-neutron yields in Pu^{239} and Th^{232} fissions induced
by 14.5-Mev neutrons

PERIODICAL: Atomnaya energiya, v. 11, no. 6, 1961, 539 - 540

TEXT: From theoretical considerations and analyses of experimental data
a slight decrease in delayed-neutron yields is expected with increasing
excitation energy. So far it has only been measured for 14.5 Mev
thermal fission neutrons from U^{235} . The authors measured the delayed-
neutron yield of 14.5-Mev neutron-induced Pu^{239} fission and, for compari-
son, that of Th^{232} fission. It was determined as the ratio between number
of fission events and the number of delayed neutrons produced per second
in the sample of fissile matter. The Pu or Th sample was cadmium coated
and bombarded with 14.5-Mev neutrons from $\text{T}(\text{d},\text{n})\text{He}^4$ reactions, with a
target just behind it being irradiated simultaneously. The steel backing
of the target was one electrode of the ionization chamber. To measure
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